

SAF-B00-004
Industrial Hygiene Sampling – Airborne
FINAL DATA

NO DISTRIBUTION REQUIRED

COMMENTS:

SDG 05I-3364-01 SAF-B00-004

Rad only ☒ Chem only Rad & Chem

☒ Complete Partial

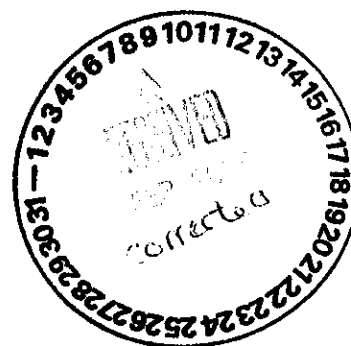
300 Area 314 Bldg

RECEIVED
SEP 30 2005
EDMC



Cover Page

Page 1 of 7



Report Identification Number: 05I-3364-01
Subcontract Number: 0000X-BO-G0058-B-Mod#4
Name of Industrial Hygienist: Henry W. Ruby / Denise A. Pitts
Laboratory Identification Number: DCHM
SAF#: B00-004;B00-005 / R300XX J451
Payroll#: 73338

Sample Information

Sample Date	Customer Sample Number	Laboratory Sample Number	Method	Analytical Batch Identification	Sample Matrix
11 Aug 2005	J03RF8	05I31941	NMAM 7300M	G057H01Q	MCE
11 Aug 2005	J03RF9	05I31942	NMAM 7300M	G057H01Q	MCE
11 Aug 2005	J03PX9	05I31943	NMAM 7300M	G057H01Q	MCE
11 Aug 2005	J03PY0	05I31944	NMAM 7300M	G057H01Q	MCE
11 Aug 2005	J03PY1	05I31945	NMAM 7300M	G057H01Q	MCE
11 Aug 2005	J03PY2	05I31946	NMAM 7300M	G057H01Q	MCE
11 Aug 2005	J03PY3	05I31947	NMAM 7300M	G057H01Q	MCE

I certify that this electronic image and all hardcopies produced from this image accurately represent the data and are in compliance with the contract specific requirements, both technically and for completeness, other than the conditions detailed above or in the sample data package narrative. Release, by submission through email, the data contained in this electronic image and the computer-readable EDD (as applicable), has been authorized by the laboratory Manager or the Manager's designee.

Name: Lisa M. Reid
Title: Chemist
Date: August 17, 2005



Case Narrative Page

Page 2 of 7

Report Identification Number: 05I-3364-01

Subcontract Number: 0000X-BO-G0058-B-Mod#4

Name of Industrial Hygienist: Henry W. Ruby / Denise A. Pitts

Laboratory Identification Number: DCHM

SAF#: B00-004;B00-005 / R300XX J451

Payroll#: 73338

General Set Information: There are five samples in set 05I-3360-01, five samples in set 05I-3361-01, three samples in set 05I-3362-01, five samples in set 05I-3363-01 and seven samples in set 05I-3364-01 for a total of 25 samples. The samples were analyzed for beryllium on MCE filter. No problems were encountered with the receipt of these samples and no contact with the CTR was required.

Method Summary: Samples were transferred to 50 ml centrifuge tubes and digested in the presence of 10 mL of 1:1 (v/v) nitric acid. Samples were digested in a hot block set at 110°C (with a thermometer reading of 96°C) for 40 minutes. Samples were then diluted to a 25 mL volume with ASTM Type II Water. Samples were shaken and delivered for ICP analysis.

Sample Preparation: All samples were prepared in accordance with DCL SOP "IH-AN-021" and NIOSH method NMAM 7300 modified for hot block digestion.

Holding Times: The holding times were met for both sample preparation and analysis.

Instrument Calibration: Instrument calibration was performed in accordance with NIOSH method NMAM 7300.

Initial and Continuing Calibration Verification Analysis: Beryllium recoveries in all Initial Calibration Verification (ICV) and Continuing Calibration Verification (CCV) samples are within the quality control limits of $\pm 10\%$.

Initial and Continuing Calibration Blank Analysis: No beryllium results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Contract Required Detection Limits (CRDL) of 0.02 ug/sample.

Method Blank Analysis: No beryllium was found in the media blank sample above the Contract Required Detection Limit (CRDL).

Dilution(s): None of the samples were diluted.

Laboratory Control Sample and Duplicate Analysis: Two Laboratory Control Samples (LCSs) and two Laboratory Control Sample Duplicates (LCSDs) were prepared and analyzed with the sample batch.

The LCS results were within the control limit of $\pm 20\%$. The Relative Percent Differences (RPDs) between the LCSs and the LCSDs were within the control limit of 20%.

Replicate Analysis: Three samples in this batch were replicated. The RPDs between the samples and the replicates were within the control limit of 20%. If the result of the sample or replicate is below the CRDL, replicate analysis is negligible.

Flagging Codes:

U - Analyte not detected above the Method Detection Limit (MDL) of 0.004 ug/sample.

J - Analyte result is reported above the Method Detection Limit (MDL) of 0.004 ug/sample, but below the Contract Required Detection Limit (CRDL) of 0.02 ug/sample.

Nonconformance/Corrective Action Report (NC/CAR): N/A

Sample Calculation: The final results are calculated by the following equation:

Final result for aqueous samples ($\mu\text{g}/\text{sample}$) = (A) x (B) x (C)

Where:

A = Analyte concentration from instrument determination ($\mu\text{g}/\text{L}$)

B = Concentration factor from sample preparation

= $\frac{\text{Final Volume of Digestate (L)}}{\text{Sample}}$

C = Dilution performed at time of analysis

Example Calculation: $(1 \mu\text{g}/\text{L}) \times (0.025 \text{ L}/\text{sample}) \times (1) = 0.025 \mu\text{g}/\text{sample}$

Miscellaneous Comments: None.

Report Identification Number: 05I-3364-01

Subcontract Number: 0000X-BO-G0058-B-Mod#4

Name of Industrial Hygienist: Henry W. Ruby / Denise A. Pitts

Laboratory Identification Number: DCHM

SAF#: B00-004;B00-005 / R300XX J451

Payroll#: 73338

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Beryllium $\mu\text{g}/\text{sample}$		Beryllium $\mu\text{g}/\text{m}^3$		Air Volume L	
J03RF8	05I31941	16 Aug 2005	<0.02	U	**		0.	
J03RF9	05I31942	16 Aug 2005	<0.02	U	**		0.	
J03PX9	05I31943	16 Aug 2005	<0.02	U	<0.007	U	559.	
J03PY0	05I31944	16 Aug 2005	0.007	J	(0.01)		578.	
J03PY1	05I31945	16 Aug 2005	0.005	J	(0.009)		581.	
J03PY2	05I31946	16 Aug 2005	<0.02	U	<0.007	U	586.	
J03PY3	05I31947	16 Aug 2005	<0.02	U	<0.007	U	643.	
Limit of Detection (LOD)			0.004					
Required Detection Limit (RDL)			0.02					

U - Parameter not detected above LOD.

J - Parameter between LOD and RDL.



QC Summary Page

Page 5 of 7

Report Identification Number: 05I-3364-01
Subcontract Number: 0000X-BO-G0058-B-Mod#4
Name of Industrial Hygienist: Henry W. Ruby / Denise A. Pitts
Laboratory Identification Number: DCHM
SAF: B00-004;B00-005 / R300XX J451
Payroll#: 73338

Batch ID: G057H01Q

QC Sample ID	QC Type	Analyte	Units	Result	Parent Result	Target	Percent Rec.	Relative Percent Diff.
BL-235123-1	MB	Beryllium	µg/sample	ND	NA	NA	NA	NA
QC-235123-1	LCS	Beryllium	µg/sample	10.2	NA	10.0	102.	NA
QD-235123-1	LCSD	Beryllium	µg/sample	9.97	10.2	10.0	99.7	1.84
BL-235123-2	MB	Beryllium	µg/sample	ND	NA	NA	NA	NA
QC-235123-2	LCS	Beryllium	µg/sample	9.99	NA	10.0	99.9	NA
QD-235123-2	LCSD	Beryllium	µg/sample	10.1	9.99	10.0	101.	1.17

MB - Method Blank

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MSD - Matrix Spike Duplicate

LD - Laboratory Duplicate

NA - Not Applicable

ND - Parameter not detected above LOD

LCS, LCSD Percent Rec. = (Result / Target) * 100.0

MS, MSD Percent Rec. = ((Result - Parent) / Target) * 100.0

LCS, LCSD Relative Percent Diff. = ((|LCS - LCSD|) / ((LCS + LCSD)/2.0)) * 100.

MS, MSD Relative Percent Diff. = ((|MS - MSD|) / ((MS + MSD)/2.0)) * 100.

LD Relative Percent Diff. = ((|Parent - LD|) / ((Parent + LD)/2.0)) * 100

051-3364.01

Bechtel Hanford, Inc.		ERC/INDUSTRIAL HYGIENE CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST											
Collector: <i>Chris Schilling</i>	Company Contact Henry W. Ruby and Denise A. Pitts	Telephone No. 373-5600			Project Coordinator Joan H. Kessner			Data Turnaround					
Payroll #: <i>73338</i>	Sampling Location <i>300 Area / 314 Bldg</i>	SPECIAL INSTRUCTIONS All relevant COAs must be provided: <i>R300xx 3451</i> ANALYSIS METHOD (SPECIFIC): <i>NIOSH 7300 Bc</i>			SAF No. B00-004; B00-005			Method of Shipment <i>Federal Express</i> Bill of Lading/Air Bill No. <i>8525 3371 9756</i>					
Type of Sample: <i>Bc</i>	Shipped To: <i>Data Chem Salt Lake City</i>												
POSSIBLE SAMPLE HAZARD/REMARKS <i>Bc</i>		MATRIX A - AIR WI - WIPE X - OTHER		Preservation (ie., cooling required, etc.)		No	No	No					
Special Handling and/or Storage <i>N/A</i>						Asbestos Airborne	Lead Airborne	<i>Bc</i> Airborne					
SAMPLE ANALYSIS					Asbestos Airborne	Lead Airborne	<i>Bc</i> Airborne						
SAMPLE NO.	MATRIX	SAMPLE DATE	VOLUME (L)	Comments									
<i>10</i> <i>14-05</i> <i>03RF8</i>	<i>A</i>	<i>8-11-05</i>	<i>N/A</i>	<i>Blank</i>									<i>051 3364.01</i>
<i>03RF1</i>	<i>A</i>	<i>8-11-05</i>	<i>N/A</i>	<i>Blank</i>									<i>942</i>
<i>03PY9</i>	<i>A</i>	<i>8-11-05</i>	<i>559</i>	<i>Personal</i>									<i>943</i>
<i>03PY0</i>	<i>A</i>	<i>8-11-05</i>	<i>578</i>	<i>Personal</i>									<i>944</i>
<i>03PY1</i>	<i>A</i>	<i>8-11-05</i>	<i>581</i>	<i>Personal</i>									<i>945</i>
<i>03PY2</i>	<i>A</i>	<i>8-11-05</i>	<i>586</i>	<i>Personal</i>									<i>946</i>
<i>03PY3</i>	<i>A</i>	<i>8-11-05</i>	<i>643</i>	<i>Personal</i>									<i>947</i>
		<i>CS</i> <i>8-11-05</i>											

BH-SH-202 (07/28/2004)

Page *1* of *3*

DataChem Laboratories, Inc.
960 West Levoy Drive
Salt Lake City, Utah 84123-2547

Phone: (801) 266-7700
FAX: (801) 268-9992

Web Page: www.datachem.com
E-mail: lab@datachem.com

ERC/INDUSTRIAL HYGIENE CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			
SIGN / PRINT NAMES / USE MILITARY TIME			
Relinquished By/Store:	DATE/TIME	Relinquished By/Store:	DATE/TIME
<i>T. Pearson</i>	8-11-05 1400	<i>locked Drawer Room 16 5746 Bldg</i>	8-11-05 1400
Relinquished By/Store:	DATE/TIME	Relinquished By/Store:	DATE/TIME
<i>D. Schilling</i>	8-15-05 1335	<i>SIGALE M/SL</i>	8/15/05 1335
Relinquished By/Store:	DATE/TIME	Relinquished By/Store:	DATE/TIME
<i>SIGALE M/SL ERC</i>	8/15/05 1420	<i>FBI EX</i>	
Relinquished By/Store:	DATE/TIME	Relinquished By/Store:	DATE/TIME
<i>Red X</i>		<i>Mercedell Edwards</i>	10/15/10
Relinquished By/Store:	DATE/TIME	Relinquished By/Store:	DATE/TIME
<i>Kathy Mc</i>	11/15/05		
Relinquished By/Store:	DATE/TIME	Relinquished By/Store:	DATE/TIME
Relinquished By/Store:	DATE/TIME	Relinquished By/Store:	DATE/TIME
Relinquished By/Store:	DATE/TIME	Relinquished By/Store:	DATE/TIME
Relinquished By/Store:	DATE/TIME	Relinquished By/Store:	DATE/TIME
Relinquished By/Store:	DATE/TIME	Relinquished By/Store:	DATE/TIME
Relinquished By/Store:	DATE/TIME	Relinquished By/Store:	DATE/TIME
LABORATORY SECTION	Received By	Title	DATE/TIME
	<i>Mercedell Edwards</i>		10/15/10

REVIEWED BY: _____ DATE: _____
PRINT/SIGN NAME

BHI-SH-202 (07/28/2004)

Page 2 of 2

Kessner, Joan H

From: Griffiths, Kevin W. [griffiths@datachem.com]
Sent: Thursday, September 08, 2005 8:39 AM
To: Kessner, Joan H
Cc: henry.ruby@wch-rcc.com; denise.pitts@wch-rcc.com
Subject: RE: Volume Correction, IH Air Sample (BS05-168)
Attachments: 05I-3364-01.TXT; 05I-3364-01r.pdf

Kevin Griffiths
Project Manager
(801) 904-4302
Cell (801) 835-9597
griffiths@datachem.com

NOTICE - This information is confidential, may contain legally privileged information, and is for the sole use of the intended recipient. Disclosure, copying, distribution, or reliance on this message by unintended recipients is strictly prohibited. If you have received this message in error, please notify us.

From: Kessner, Joan H [mailto:joan.kessner@wch-rcc.com]
Sent: Thursday, September 08, 2005 8:31 AM
To: Griffiths, Kevin W.
Subject: FW: Volume Correction, IH Air Sample (BS05-168)
Importance: High

Kevin--
More...
Joan

From: Whatley, Zona G (Gwen)
Sent: Friday, August 19, 2005 7:12 AM
To: Kessner, Joan H; 'griffiths@datachem.com'
Subject: Volume Correction, IH Air Sample
Importance: High

Lab = DataChem, Utah for airborne Beryllium by NIOSH 7300
Sample Date = 8/11/05
Sample Set as on COC = J03RF8 - J03PY3

Sample J03PY3 was recorded on the COC as having a volume of 614 liters, the correct volume is 643 liters.

Cordially,

9/8/2005

Z. Gwen Whatley
531-0676